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Video game creators often are self-taught

*By Joe Szadkowski December 20, 2001 Publication: The Washington Times Page: B4
Word Count: 1107*

The video game has come a long way from paddling a blip back and forth on a television screen. The \$20 billion-a-year industry features a host of new gaming systems from Nintendo, Sony and Microsoft; hundreds of titles; and state-of-the-art technology that can bring a lifelike experience to home entertainment centers and computers.

Bethesda Softworks (www.bethsoft.com) has been creating on-screen adventure for 15 years. The Rockville-based company is working on a massive role-playing game, "Elder Scrolls III: Morrowind," for the PC and Microsoft's Xbox system that should be available this spring. Project leader and senior designer Todd Howard took time to explain the magic behind video games.

What type of "education" do you have in game development?

I am a 31-year-old guy who went to the College of William and Mary for a degree in finance, which was the easiest way to get through college while playing the most computer games.

I am a self-taught computer game cracker and creator. In this field, being self-taught is still the way to go because what we do is not traditional programming or software development. By the time an individual finishes learning something in college, the technology will have already gone beyond that, so really, it is hands-on learning, growing with the technology as the technology grows.

Why did characters and environments from older games always look so blocky?

The first reason they looked blocky was the pixels were larger in older games, causing things to not look rounded. But now, with higher resolutions (more pixels) and 3-D graphics, things on the screen can look very round and be viewed from any angle, which makes them move more smoothly.

What is a pixel?

A pixel is a dot on your screen. These dots make up everything you see on a monitor or TV. So basically, the faster a game can move these pixels around, the better it plays and the more special effects you can do in your game.

How did the industry progress from basic games to story-driven adventures?

The first game to reach out to mass-audience awareness was "Pac Man," which also had a cartoon, song and merchandising. The game that brought more people to the computer to play games was "Tetris." The first mass-recognized computer game with a story environment was probably "Myst."

"Doom" changed games because of what it could do technically. People looked at it and could not believe their eyes. The environment was immersive, had great graphics and opened the door to show the world that games could be more than they were. Any action game on the computer is based on the core concepts developed for "Doom."

What has been the biggest change in games since "Doom"?

Interactivity is the biggest change. "Half Life" was one of the first games to really give you the experience of being in a real environment, having a first-person experience. For example, in that game, you could walk up to people and listen in on their conversation.

In our "Elder Scrolls" sagas, you can walk around, pick up a cup or move a plate. Also, each character has a unique personality - they may get frustrated easily or scared or be very brave. Along with the interactivity, the better graphics capabilities are changing players' expectations.

This means that if the character looks more realistic, he is expected to act, sound and react more realistically. This means games take longer to create, using more developers.

How has technology changed to allow you to create such a massive game?

Today, technology power is sheer horsepower. The graphics processors have moved beyond taking things and just putting them on the screen. Advanced 3-D video cards handle the processing geometry, allowing us to do so much more.

Have you done some new things with your latest game?

We have had 35 people working on the game for the past 2 1/2 years, developing more than 2,000 characters. The game is huge. We call it an anomaly because our challenge has been to add another zero to whatever had been done before - if they had 200 characters, we want 2,000.

Also, in order to create the game, we use a robust construction set that allows us to build areas quickly so that we can go in and set up rooms for the characters to move around in. So the first thing we needed to do was to have - and in this situation create - . . . the tools that allowed us to create a very intense, immersive and realistic world.

For instance, if you look at the Web site's screen shots, there is a picture showing a table inside a hut that is interesting to look at. The bottles on the table have weight, the candlelight flickers. When a player moves a character into this world, they can only do things that they could in the real world. If their hands are full, the character could not pick up something else. If the character is a slight, stealthy thief type, he or she may not be able to pick up something that is too heavy.

What is more important to the success of a game, the story or the technology?

For mass success, it really is the technology. A good story will not bring a lot of people to the table, though the story is necessary for the fun factor that keeps them playing. But more people are going to be excited about the game if they see or hear about things that are new and hot and really beautiful, something we put a premium on with our fantasy games.

What do you look for on a person's resume?

When looking for programmers, we have had great success with people out of college with degrees in computer science who are game enthusiasts and who have, on their own, tried to create games, increasing their knowledge beyond just the classroom-taught C++.

On the art side, it is much easier; we lean toward hiring people with traditional skills. We see the computer as another tool for the artist, and we recognize that we can teach someone with art talent the software and 3-D modeling packages, but you can't necessarily teach artistic talent to someone who knows the computer.

What gaming system would you recommend parents buy for their children this holiday season?

That depends on their age. If they are under 12, I'd go with the GameCube, which has great games for the young audience. If they are in their teens, the Xbox is the one to get. The games are a lot more sophisticated on the Xbox.

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The Washington Times

Date: December 20, 2001

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